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| Annual collector output based on EN 12975 Test Results, annex to Solar KEYMARK Certificate | Licence Number | 011-7S2191 R |
| | Issued | 25.10.2013 |

| Annual collector output kWh/module | | | | | | | | | | | | | | | |
|---|---|-------|-------|-------|-------|-------|-----------|-------|-------|----------|-------|-------|--|--|--|
| Collector name | Location and collector temperature (Tm) | | | | | | | | | | | | | | |
| | Athens | | | Davos | | | Stockholm | | | Würzburg | | | | | |
| | 25°C | 50°C | 75°C | 25°C | 50°C | 75°C | 25°C | 50°C | 75°C | 25°C | 50°C | 75°C | | | |
| Vitosol 200-T SP2A-12 | 2 029 | 1 802 | 1 586 | 1 745 | 1 535 | 1 341 | 1 248 | 1 069 | 911 | 1 343 | 1 150 | 980 | | | |
| Vitosol 200-T SP2A-24 | 4 046 | 3 594 | 3 161 | 3 479 | 3 060 | 2 675 | 2 488 | 2 131 | 1 816 | 2 678 | 2 294 | 1 954 | | | |
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Collector mounting: Fixed or tracking Fixed; slope = latitude - 15° (rounded to nearest 5°)

| Overview of locations | | | | |
|------------------------------|------------|-------------|-------|--|
| Location | Latitude ° | Gtot kWh/m² | Ta °C | Collector orientation or tracking mode |
| Athens | 38 | 1 765 | 18.5 | South, 25° |
| Davos | 47 | 1 714 | 3.2 | South, 30° |
| Stockholm | 59 | 1 166 | 7.5 | South, 45° |
| Würzburg | 50 | 1 244 | 9.0 | South, 35° |
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|------|--|--------|
| Gtot | Annual total irradiation on collector plane | kWh/m² |
| Ta | Mean annual ambient air temperature | °C |
| Tm | Constant collector operating temperature (mean of in- and outlet temperatures) | °C |

The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool ScenoCalc. The collector output is calculated hour by hour according to the efficiency parameters from the Keymark test using constant collector operating temperature (Tm). A detailed description of the calculations is available at <http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>.

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| | 4.04, 2013-04-22 |
| | ScenoCalc version: |
| | Ver. 4.04 (Jun, 2013) |